

GLOBAL MANAGEMENT OF LOCAL LINK POWER CONSUMPTION

ABSTRACT

Methods, and arrangements for power reduction in links, such as transmitters and receivers, based upon global decisions such as the data transmission frequencies, communications media, and traffic types associated with links, are disclosed. In particular, embodiments take advantage of high-level decisions by reconfiguring internal circuits of transmitters and receivers of links to reduce power consumption. At the global level, a decision determines the links that are active, the data frequency at which the links operate, and the media through which the links transmit the data. At the local level, the links receive the decisions and reconfigure circuitry automatically to minimize power based upon the decisions. In some embodiments, the links may receive the decisions in the form of power modes. In further embodiments, the links may receive settings such as on/off settings, data frequency settings, and traffic/media settings, the combination of which indicates power modes.